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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/589,887	06/09/00	LUZIO G	P18435

007055 IM22/1025
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EXAMINER	
PRATT,H	
ART UNIT	**PAPER NUMBER**
1761	7

DATE MAILED: 10/25/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary	Application No.	Applicant(s)	
	09/589,887	LUZIO ET AL.	
	Examiner	Art Unit	
	Helen F. Pratt	1761	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 September 2001* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-121* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-121* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> **The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.**

Claims 1-4, 48 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1 is indefinite in that it requires particular characteristics, but does not state how much pectin would have been required to make a solution with the claimed characteristics. Claim 3 is indefinite in the use of Manganese ions twice in the claim (and other places that this may appear).

Claim 11 is indefinite in that it is not known what the "triangle" in front of the degree sign indicates.

Claim 48 is indefinite in the use of the phrase "wherein the enzymatically blocked-desterified pectin displays....". This phrase is not understood because the pectin is now in an acidic liquid system, so that it would not in itself display these characteristics. Certainly, Applicants mean that the acidic liquid displays such characteristics.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> **(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and**

the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 1- 8, 18-48 are rejected under 35 U.S.C. 103(e) and (b) as being unpatentable over Gerrish (6,221,419) (e) and Glahn '346 (e), Jabcobson et al.,(b) Akahoshi et al.(b).

Gerrish disclose a composition containing a pectin with a degree of esterification from 60-95% and a calcium sensitivity of less than 25, which is used to stabilize acidic beverages such as yogurt (abstract and col. 13, lines 29-35). The pectin is considered to be a blocked-deesterified pectin because it has been treated with an enzyme. The polyvalent cation, calcium is contained in the milk drink of the reference (col. 11, lines 45-70) Glahn disclose a composition containing a pectin with a DE of more than 60% in a cation containing preparation (abstract). No patentable distinction is seen at this time in whether the pectin is enzymatically blocked or not as the DE is shown. Jacobson et al. disclose a foodstuff containing a complex of calcium and an enzymatically-hydrolyzed polysaccharide (abstract). (col. 1, lines 55-70 and col. 2, lines 1-26). The pectin is seen to be blocked as it has been treated with an enzyme. Akahoshi et al. disclose a calcium enriched fermented milk containing blockwise-type HM pectin (abstract). The pectin is seen to have been enzymatically treated to produce the blockwise-type HM pectin, because that is how enzymes react with pectin. Claims 1 and 13 differ from the references in whether the pectin shows pseudoplasticity and no phase separation in an aqueous solution containing a polyvalent cation. However, as the composition has been shown it is seen that such characteristics are inherently found in the composition. Therefore, it would have been obvious to make a pectin which did

not exhibit phase separation and dispayed pseudoplasticity as shown by the above combination of references.

Claim 2 requires from 10 to 2000 ppm of a polyvalent ion, claim 3 calcium ion, and claims 4 and 5, particular amounts of calcium ion. Akahoshi disclose using 5 grams of calcium to enrich the mixture (col. 8, lines 30-40). It is not known if this is within the claimed amounts, but the use of 5 grams of calcium does show, that it is known that pectin can be combined with calcium. Therefore, it would have been obvious to enrich a pectin mixture with calcium.

Claims 6-8 disclose a phase separation of a particular amount. Akahoshi disclose that their composition does not separate or precipitate for two weeks (col. 9, lines 45-54). Therefore, it would have been obvious to make a product with no phase separation.

Claim 14 requires particular sources for the pectin and claim 15 that the enzyme is papain. The sources as claimed are well known as is the use of papain as in claim 15. Therefore, it would have been obvious to use known sources of the enzymes and in particularly papain.

Claims 16-19 require particular degrees of esterification. The combined references disclose that it is known to use various degrees of esterification of pectin. Therefore, it would have been obvious to use such in the combined product of the references.

Claim 20 further requires the use of the pectin is in aqueous form or powder form. Powdered pectins are well known as in SURE JELL (Trademark). Therefore, it would have been obvious to use a dried pectin the product of the combined references.

The further limitations of claims 21-24 have been discussed above and are obvious for those reasons.

Claim 25 is to the process. Akahoshi et al. disclose a pectin that has been treated with enzymes, hence making it a blockwise-type HM pectin (abstract). Claim 25 differs from the reference in whether the product displays pseudoplasticity and no phase separation in an aqueous solution containing a cation. Askahoshi et al. disclose a milk which is treated with a blockwise-type HM pectin and which does not display separation. It is not seen at this time whether the pseudoplasticity is found in this product. Absent a showing to the contrary, since the claimed pectin is shown, the pseudoplascitiy is shown (col. 9, lines 45-50). Therefore, it would have been obvious to treat a high methoxyl pectin with a deesterifying enzyme , which would have produced the claimed characteristics.

The further limitations of claims 26-47 have been discussed above and are obvious for those reasons.

Claim 48 further requires that the enzymatically blocked-deesterified pectin is added to an acidic liquid system. Akahoshi et al. disclose adding the above pectin to a lactic acid fermented acidified milk (abstract). As above, the claimed characteristics are considered to be obvious.

The further limitations of claims 49-60 have been discussed above and are obvious for those reasons.

Claim 61 requires a particular ratio of pectin to calcium. However, as it is known that pectin needs calcium in order to gel, it would have been obvious to use particular amounts calcium to make a particular product.

The use of protein and casein as in claims 64 and 65 are disclosed by the reference to Akahoshi (abstract). Therefore, it would have been obvious to add such.

Claim 67 further requires adding a fruit or vegetable to the composition. No amounts are disclosed in order to make a patentable distinction. At any rate, Akahoshi discloses adding strawberry juice to the composition (col. 9, lines 5-14). Therefore, it would have been obvious to add a fruit to the composition.

The further limitations of claims 67-77, 84-121 have been discussed above.

Claims 78 and 79 further requires a particular amount of pectin which is seen to have been within the skill of the ordinary worker depending on the amount of gelling required in the product. Therefore, it would have been obvious to use a particular amount of pectin to make the claimed product.

Claims 80 - 82 require an acidic pH. Akahoshi disclose the use of a fermented milk product, which is known to be acid within the claimed range, due to the lactic fermentation (col. 10, lines 15-20). Therefore, it would have been obvious to make an acidic beverage.

Claims 9-12, 83 are rejected under 35 U.S.C. 103(a) as being unpatentable over the above combined references as applied to claims 1-8, 13-82, 84-121 above, and further in view of Grassin et al. '494.

Claims 9-11 and 83 require particular degrees of esterification and claims 11 and 12 further require, a certain degree of calcium sensitivity. Grassin et al. disclose a composition containing high methoxylated pectin in fruits which have been treated with a pectin esterase to make a low-methoxylated pectin which is calcium dependent (abstract and col. 2, lines 23-28, col. 6, lines 58-60). Therefore, it would have been obvious to make a composition containing a pectin with a low degree of esterification in the process of the above references because the reference to Akahoshi et al. in particularly, needs the high methyl pectin in order to tie up the casein and lessen the chance of precipitation, while in Grassin et al. there is no problem with casein precipitation and there is no such problem in the instant claims.

Glahn discloses the use of calcium sensitive pectins as in claim 11 up to 100% . (Col. 5, lines 50-70, col. 6, lines 1-15). As it is known to make calcium sensitive pectins, it would have been obvious to make them to whatever degree was required in the claimed invention. Particular amounts of esterification are also seen to have been within the skill of the ordinary worker as in claim 12, as it is well known how to achieve such. Therefore, it would have been obvious to use particular pectins with certain calcium sensitivities and amounts of esterification to make the claimed product.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Helen F. Pratt whose telephone number is 703-308-1978.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Milton Cano, can be reached on (703) 308-3959. The fax phone number for the organization where this application or proceeding is assigned is 703-308-7718.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1193.

Hp 10-23-01

H.L. Pratt

HELEN PRATT
PRIMARY EXAMINER
GROUP ~~1300~~ 1761